

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

The Abstract has been amended to overcome the objection thereto.

Claims 1, 2, and 5 stand rejected, under 35 USC 103(a), as being unpatentable over Vilhonen et al. (US 6,972,633) in view of Chengson (US 6,538,518). Claim 3 stands rejected, under 35 USC 103(a), as being unpatentable over Vilhonen in view of Chengson and Csicsatka (US 3,934,092). Claim 4 stands rejected, under 35 USC 103(a), as being unpatentable over Vilhonen in view of Chengson and Ohira (US 6,252,468).

The Applicant respectfully traverses these rejections based on the points set forth below.

Claim 1 defines a PLL frequency synthesizer having:

(1) an oscillator that generates a frequency signal corresponding to a voltage produced by a selected one of a plurality of loop filters and

(2) a variable filter, which is varied in accordance with the selected loop filter, that eliminates a frequency fluctuation component produced by the oscillator.

The Office Action proposes that Vilhonen discloses, in Fig. 1, a baseband filter 4 that eliminates a frequency fluctuation component generated by VCO 24 of PLL 2 (see Office Action page 3, lines 3-9).

However, the Applicant notes that Vilhonen discloses that PLL 2 produces a phase locked VCO signal that is used as a local oscillator signal of a transmitter mixer (see Vilhonen col. 3, lines 46-48). Vilhonen also discloses that baseband filter 4 filters baseband signals that are to be transmitted in a "well known manner" (see col. 3, lines 49-51). Thus, Vilhonen discloses that the local oscillator signal produced by VCO 24 is conveyed to a transmitter mixer that shifts the frequency components output by baseband filter 4 to frequencies given by the sum of the VCO's local oscillator signal and the baseband frequency components output by baseband filter 4.

Accordingly, it follows that baseband filter 4 does not filter anything produced by PLL 2.

Moreover, even if baseband filter 4 were a part of the receiver chain rather than part of the transmitter chain, as disclosed by Vilhonen, the signals filtered by a baseband filter are those that have been down-converted by a mixer to baseband frequency. Analogous to the transmitter chain, the local oscillator signal produced by a receiver chain PLL would be used

by a receiver mixer to down convert a received signal to baseband frequency. Thus, a baseband filter of a receiver chain filters a down converted reception signal, it does not filter a local oscillator signal produced by a receiver PLL or any frequency components therein, as seemingly proposed in the Office Action.

Chengson is not cited for supplementing the teachings of Vilhonen with respect to the above-mentioned differences between the claimed subject matter and Vilhonen's disclosure.

Accordingly, the Applicant respectfully submits that Vilhonen and Chengson, considered individually or in combination, do not render obvious the subject matter defined by claim 1. Therefore, allowance of claim 1 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

Respectfully submitted,

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Date: December 12, 2007
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